

## Area SB-01

In September 2019, at area SB-01, 10 soil samples were collected from five borings at depth intervals of 0 to 2 feet and 5 to 7 feet below ground surface (bgs). The five borings consisted of a center confirmation boring and four associated step-out borings situated 5 feet north, south, east, west (approximate) from the center boring. All 10 soil samples were analyzed for arsenic. Data posting tables listing the September 2019 SB-01 soil results can be found in Figure 1. A review of the data identified the following:

- All deep (5 to 7 feet bgs) soil samples from all five borings did not contain arsenic in soil above DNREC Hazardous Substance Cleanup Act (HSCA) criteria [HSCA criteria = 11 milligrams per kilogram (mg/kg)].
- The SB-01 step-out to the west (SB-01-5W) did not contain arsenic in soil above the DNREC HSCA criteria in the shallow sample as well as the above noted deep soil sample.
- The shallow 0 to 2-foot soil samples associated borings SB-01C (center) and step-out borings to the north, south, and east did contain arsenic in soil above the DNREC HSCA criteria (see Figure 1)

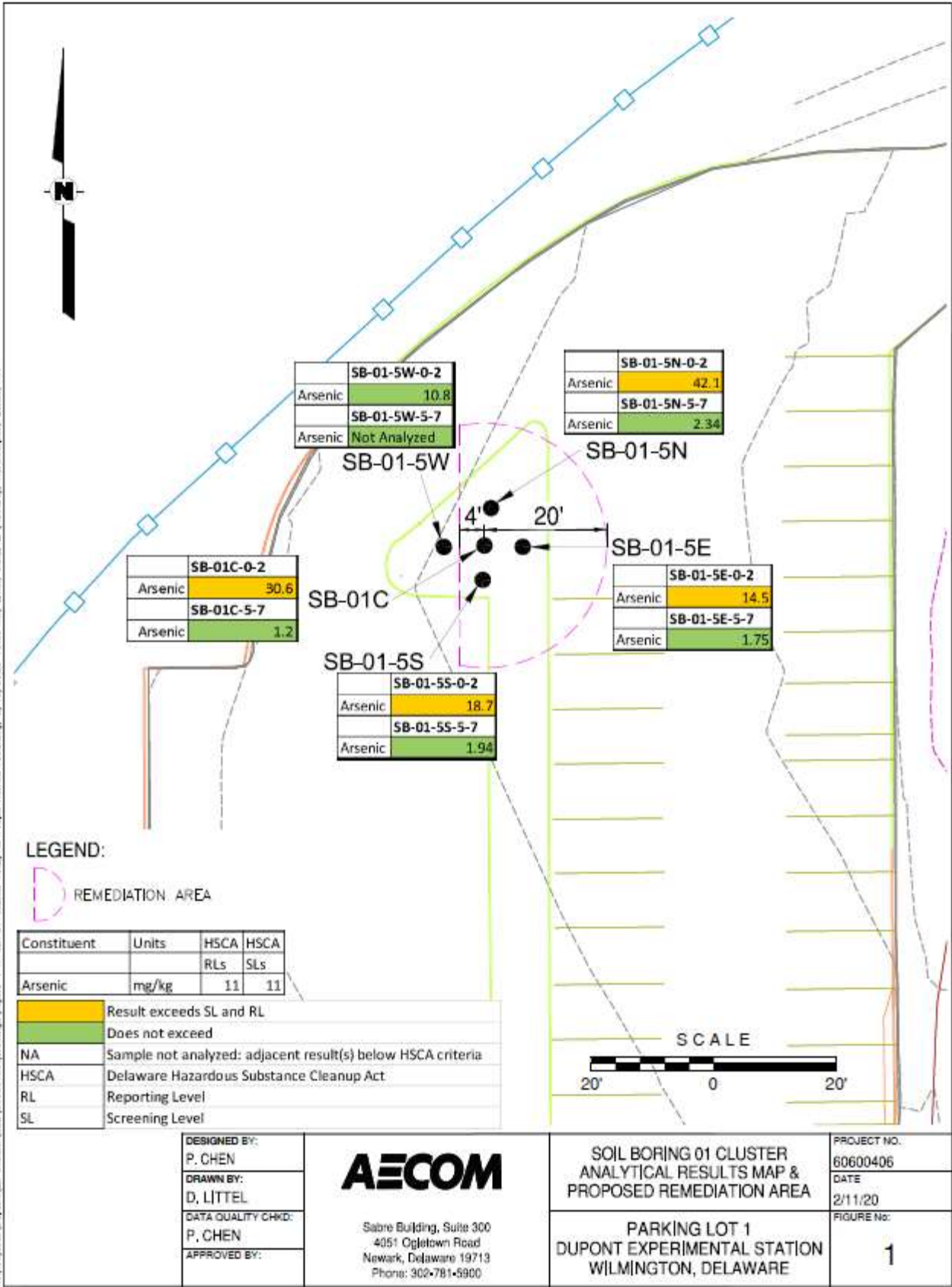
**Summary of Findings:** Arsenic exceedances were detected at shallow depths in four of the five shallow soil samples. The arsenic exceedances were detected in shallow soils associated with the center boring and in shallow soils located a distance of 5 feet to the north, south, and east of the SB-01 center boring.

The parking lot area was a golf course/country club from the 1920s into the 1950s. The arsenic detected is likely associated with the application of lawn care products, which are known to contain arsenic such as fertilizer and gardening soils.

For the SB-01 area, soil excavation has been identified as the remedial method to address the arsenic detections in the shallow soils to the north, south, and east of the center boring. Remediation details are as follows:

- Heavy equipment will be used to excavate a  $\frac{1}{2}$  circle area that has a radius of 20 feet to the north, south, and east from the SB-01 center boring (see Figure 1).
- To the west, due to the low arsenic concentration associated with boring SB-01-5W, the excavation will extend 4 feet to the west of the SB-01 center boring.
- Soil within this  $\frac{1}{2}$  circle area will be excavated to a depth of 3 feet bgs.
  - The studies of arsenic in soil associated with other former golf courses determined that arsenic exceedances are limited to top 12 inches (Brightfields, November 2009).
  - An excavation depth of 3 feet will allow for the excavation of soil from underneath the depth impacted by arsenic exceedances
- It is anticipated the excavated soil will be disposed of off-site at a Subtitle D Treatment, Storage, and Disposal Facility (TSD).
- Asphalt, curbing, and parking lot related subbase within the excavation area will be excavated and disposed of at either an asphalt recycling facility or at a Subtitle D TSD facility.
- The excavated area will be barricaded off by DuPont and will be backfilled and restored as part of the Parking Lot 1 reconfiguration.

**SB-01 Soil Remediation Plan for Parking Lot 1 at the DuPont Experimental Station,  
Wilmington, Delaware (February 13, 2020)**



W:\Projects\DuPont\ES\_Smoke\Conf\60600406\Drawings\Figure 1 - SB-01 Cluster Analy & Final Remed Area.dwg, 2/13/2020 10:08 AM, User: David E (Newark), P:\P195.pcs, Litter, 11